

# *Hypsiboas pugnax* Schmidt, 1857 and *Scinax ruber* Laurenti, 1768 (Amphibia: Anura): Distribution extension in the Río Cauca Valley, Colombia

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**ABSTRACT:** *Scinax ruber* and *Hypsiboas pugnax* are nocturnal and arboreal species, and can be found typically in open areas with human disturbance. Here, we present the first record of *S. ruber* and *H. pugnax* from the departments of Valle del Cauca and Cauca, Colombia, and the southernmost record in the Río Cauca valley.

*Hypsiboas pugnax* (Schmidt, 1857) belong to the *Hypsiboas faber* species group (sensu Faivovich *et al.* 2005). The main diagnostic characters of this species are: i) the absence of the calcar tubercle (or poorly developed), ii) a bar pattern in the anteroventral surface of thighs, iii) with webbing in the hands reaching the distal subarticular tubercle, iv) presence of black dots in the anterior region of the lower palpebral membrane, and v) well-developed pre-pollical spines. In spite of Duellman (1970) proposal of *H. pugnax* as synonym of *Hypsiboas crepitans* (Wied-Neuwied, 1821), Kluge (1979) resurrected *H. pugnax* from the synonymy; based on an overall larger size and more extensive hand webbing than *H. crepitans*. In addition, *H. crepitans* does not have a bar pattern along the posterior surface of the thighs (Lynch and Suarez-Mayorga 2001) and neither black dots in the palpebral membrane (Mauricio Rivera comm. pers.).

*Hypsiboas pugnax* is distributed in Panama, Colombia and Venezuela. In Colombia, it is widely distributed in the lowlands (below 500 m) of the Caribbean region, the Magdalena valleys, and the Llanos Orientales (Lynch and Suarez-Mayorga 2001; La Marca *et al.* 2010). There is only one record of *H. pugnax* in the Cauca valley, which was reported by Castro-Herrera and Vargas-Salinas (2008) in the check list of amphibians and reptiles of the department of Valle del Cauca. However, the record is a potential distribution provided by Frost (2013) for this region, and has yet to be confirmed.

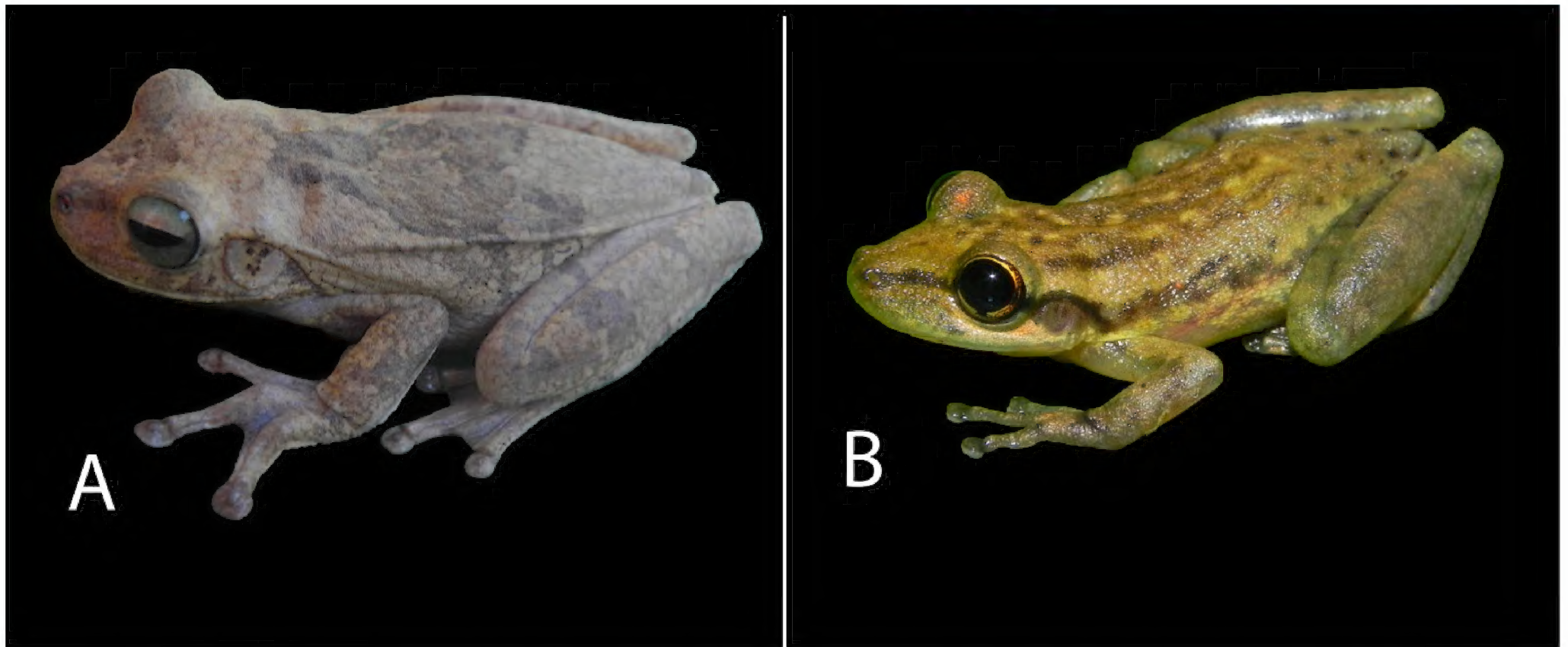
*Scinax ruber* (Laurenti, 1768) is a medium-sized frog. Adult males have a snout vent length of up to 35 mm; and adult females up to 40 mm (Duellman 1970). The main diagnostic characters are: long snout; a distinct tympanum; fingers with reduced webbing; a smooth dorsal surface, granular ventral surface in the throat, belly and lower surfaces of thighs; males with a single vocal sac, long vocal slits; the dorsum is pale olive-brown or grayish brown with longitudinal markings and a narrow dark brown line from the nostril to the eye (León 1969; Duellman 1970). In life, the posterior surfaces of the thighs and part of

the anterior surfaces are dark brownish yellow or black mottling; the flanks either brownish yellow or black reticulations tending to enclose small yellow or creamy-yellow spots with black, brown, or olive flecks (Duellman 1970).

*Scinax ruber* is a member of the monophyletic *S. ruber* clade which contains 56 species. From these, eleven species have been assigned to the *Scinax rostratus* Group and *Scinax uruguayus* Group, whereas *S. ruber* and the remaining species are unassigned to any species group (Faivovich *et al.* 2005). However, as many other widely distributed frogs, it is suspected that *S. ruber* contains several undescribed cryptic species (Fouquet *et al.* 2007). *Scinax ruber* has been reported historically in the Amazon Basin of Brazil, Peru, Ecuador, Guyana, eastern Panama, Trinidad and Tobago, Lesser Antilles and Colombia (Frost 2014). In Colombia, the species is known in the Caribe region, north of Chocó, the Río Magdalena valley and the Orinoquía (Ruiz-Carranza *et al.* 1996; Nieto 1999).

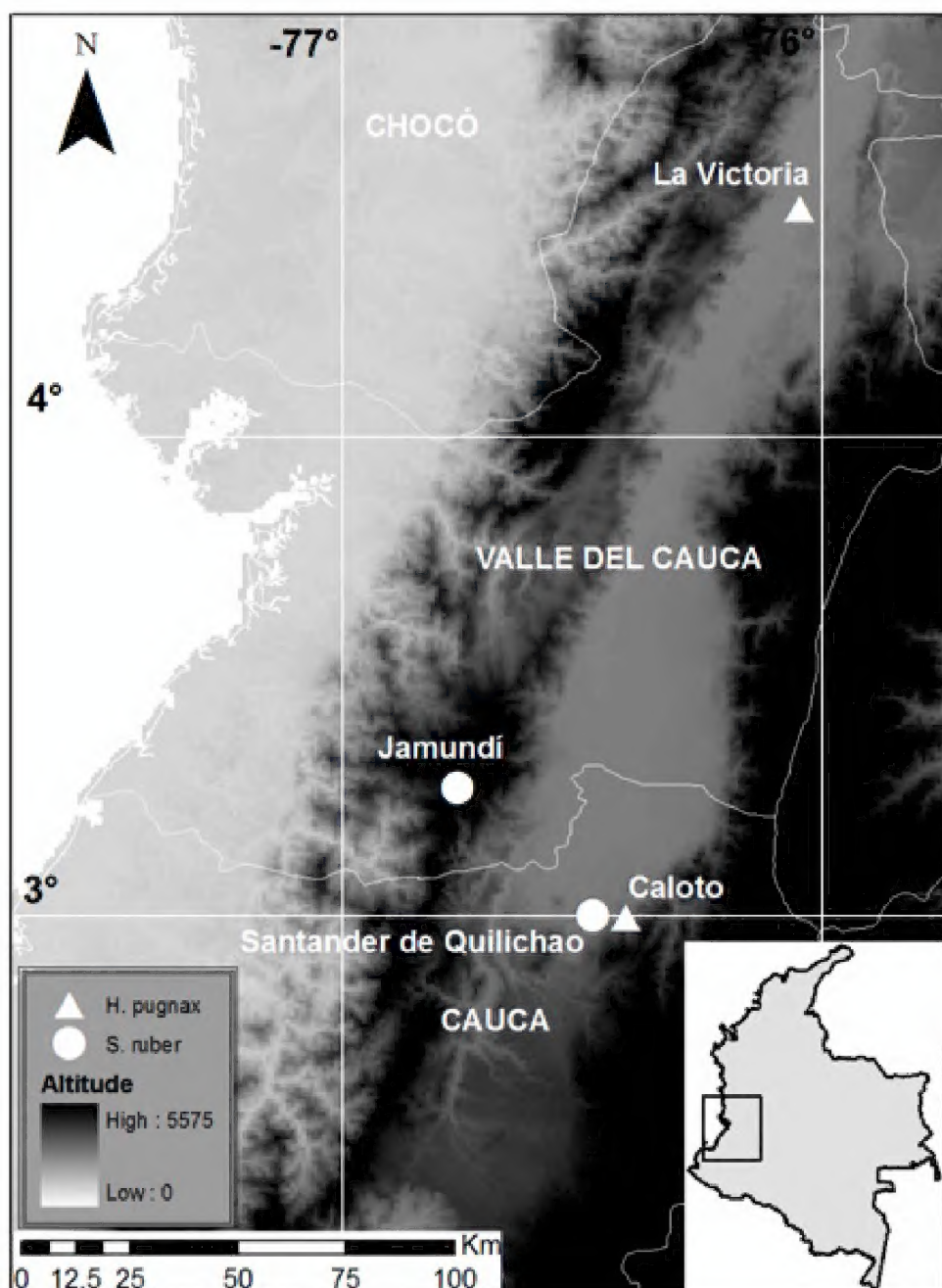
On March 27, 2011, one adult specimens of *H. pugnax* (SVL= 49.6 mm; Figure 1A) was collected in the Vereda Morales, municipality of Caloto, Cauca department (02°59'49.1" N, 76°24'25.2" W. 1200 m elevation). It was observed in a farming area, calling from a temporal pond. On August 31, 2011, an additional specimen (SVL=55.3 mm) was collected in the municipality of La Victoria, Corregimiento of San Pedro, Valle del Cauca department (4°28'37.9" N, 76°2'43.3" W. 940 m elevation). On November 24, 2009, we collected two specimens of *S. ruber*, an adult male (SVL: 33.6 mm; Figure 1B) and a sub adult female (SVL: 26.7 mm) in the municipality of Jamundi, Valle del Cauca department (03°13'18.5" N, 76°35'63" W.); three additionally individuals were found in the municipality of Santander de Quilichao, Cauca department (03°00'8.03" N, 76°28'40.3" W. 1048 m elevation): one mature female with eggs (SVL: 29.55 mm) collected on April 27, 2010, and one sub adult female (SVL: 28.09 mm) and a mature male (SVL: 36.20 mm) collected between February 19 and 22, 2011. Some specimens were





**FIGURE 1.** A. Specimen of *Hypsiboas pugnax* from Caloto, department of Cauca; B. Specimen of *Scinax ruber* from Jamundi, Valle del Cauca, Colombia.

reported in bushes, grasses and ponds in open areas, and in moist areas inside houses. The specimens were deposited in the “Colección de Docencia”, Zoology section of the Universidad del Valle, Cali Colombia (*H. pugnax*\_CD: 1791, 1792; *S. ruber* CD: 1782-1786). Thus, we confirmed the suspected distribution of *H. pugnax* in the department of Valle del Cauca suggested by Castro-Herrera and Vargas-Salinas (2008), and extend its known distribution southward from Rio Cauca valley to Cauca department (Figure 2). With respect to *S. ruber*, ours is the first record for departments of Cauca and Valle del Cauca, Colombia.



**FIGURE 2.** Distribution of *Hypsiboas pugnax* (triangles) and *Scinax ruber* (circles) in the department of Cauca y Valle del Cauca, Colombia.

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